

Statement of Considerations

CLASS WAIVER OF THE GOVERNMENT'S U.S. AND FOREIGN PATENT RIGHTS IN INVENTIONS MADE IN THE COURSE OF OR UNDER COOPERATIVE AGREEMENTS ENTERED INTO UNDER THE DEPARTMENT OF ENERGY'S HIGH TEMPERATURE SUPERCONDUCTIVITY PILOT CENTERS PROGRAM W(C)-88-001

The Department of Energy (DOE) considers the National Laboratories to be a unique and valuable national resource that should be made available to the extent feasible for use by others to accelerate commercialization of energy technology.

In 1987 President Reagan issued Executive Order No. 12501 entitled "Facilitating Access to Science and Technology". The purpose of this Executive Order was to ensure that Federal agencies and laboratories assist universities and the private sector in broadening the technology base of the nation by moving new knowledge from the research laboratory into the development of new products and processes. More particularly, Federal agencies were, to the extent permitted by law, to encourage and facilitate collaboration among Federal laboratories, state and local governments, universities, and the private sector.

The Department has undertaken various initiatives aimed at reducing institutional barriers to the transfer of technology from its National Laboratories. One such initiative is in the area of increased access by the private sector to the M&O contractor facilities. Access by nonprofit organizations, small business firms, or others to such research and development facilities is already available in situations where the private party (i.e., sponsor) agrees to reimburse the Government or M&O contractor for costs of performing the sponsor's work. Such arrangements are involved in the DOE "Work for Others" (WFO) and "Use of Facilities" Programs, and are not considered "funding agreements" as defined in 35 USC 201.

In order to facilitate wider use and access to these facilities DOE issued class waivers dealing with subject inventions made by sponsors in these two categories to any work performed at M&O facilities under the WFO Agreements or User Agreements; this may include work relating to high temperature superconducting technology.

The High Temperature Superconductivity (HTSC) Pilot Centers Program is an additional and alternate mechanism which is to be made available under cooperative agreements with small business, nonprofit, or large business participants to avail themselves of the unique R&D facilities and expertise of selected M&O contractors. The Pilot Centers Program differs from and is distinguishable from the "Work for Others" or "Use of Facilities" Programs in several respects:

1. The Pilot Centers Program will be funded by DOE through cooperative agreements with private participants and therefore such agreements may fall within the term "funding" agreement as defined in P.L. 95-517, as amended by P.L. 99-670.

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2. The Pilot Centers Program class waiver is directed to a specific technology, i.e., High Temperature Superconductivity, and is intended to allocate patent rights in a manner which will accelerate commercialization of that technology.

3. The Pilot Centers Program class waiver takes into consideration not only the technology transfer capacity of the participant but allows utilization of the already demonstrated technology transfer capacities of the selected Department's MAO contractors, thus providing an opportunity for the participant as well as the MAO contractor to advance commercialization of HTSC technology. For example, where the participant is not interested or is not in a position to commercialize all areas of utility of a given superconducting invention, this class waiver has sufficient flexibility to permit the technology transfer resources of the MAO contractor to be utilized to promote the full commercial potential of a superconducting development.

The Pilot Centers selected for inclusion in the HTSC Pilot Centers Program are the Los Alamos National Laboratory in New Mexico operated by the University of California under Contract W-7405-Eng-35, Argonne National Laboratory in Illinois operated by the University of Chicago under Contract W-31-109-Eng-38, and the DOE-owned facilities in Oak Ridge, Tennessee, operated by Martin Marietta Energy Systems, Inc., (Energy Systems) under Contract DE-AC05-84OR21400.

The Pilot Centers have been characterized by Secretary of Energy Herrington as a key element in the Superconductivity Initiative announced by President Reagan in July 1987 to make the resources of the Federal government available to United States industry in developing commercial products from high temperature superconducting materials.

High temperature superconductivity materials have potential use in such applications as electrical generation, storage, and transmission, computers, diagnostics, and transportation. However, the materials are ceramics which are difficult to fabricate and require extensive process and product development before their commercial utility can be realized. The purpose of the Pilot Centers Program is to provide industry, nonprofit, and academia participants access to the resources of the Pilot Centers to accelerate technical and commercial development of high temperature superconducting technology.

The participants in these cooperative agreements may comprise small business firms, or nonprofit organizations, as defined in 35 USC 201, and large business, i.e., those business entities which do not meet this definition. Under the provisions of the Bayh-Dole Act, P.L. 95-517, as codified in 35 USC 201 et seq., each nonprofit organization or small business may, with certain exceptions, elect to retain title to inventions conceived or first actually reduced to practice by its employees in the performance of work under a contract, grant, or cooperative agreement entered into between any Federal agency and any contractor funded in whole or in part by the Federal

Government. Thus, small business entities and nonprofit organizations already have a statutory right to elect to file on any of their inventions made during the course of any funding agreement which they enter into with a Pilot Center's M&O contractor.

Additionally, the nonprofit M&O contractors may, with certain exceptions, elect to retain rights under the provisions of P.L. 96-517, as amended, to inventions conceived or first actually reduced to practice by their employees in the performance of any funding agreement which they enter into with a participant under the HTSC Pilot Centers Program.

It is the purpose of this class waiver to provide a waiver of patent rights under the authority of Section 152 of the Atomic Energy Act of 1954, as amended, (42 USC 2182) and Section 9 of the Federal Non-nuclear Energy Research and Development Act of 1974 (42 USC 5909) which is consistent with the objectives of Executive Order 12591. In one particular, the scope of this class waiver is directed to the class of identified inventions which comprise:

- A. Subject inventions made by employees of Energy Systems during the course of or under any cooperative agreement entered into by Energy Systems under the HTSC Pilot Centers Program, and
- B. Subject inventions of large business entities which cost share less than 20% in cooperative agreements entered into with Pilot Centers' M&O contractors under the HTSC Pilot Centers Program. Historically, cost sharing levels below 20% have not generally been found by DOE to represent sufficient corporate interest and commitment by large business contractors in the commercialization process to justify waiver of the Government's rights in such inventions.

In accordance with this class waiver, Category (A) inventions are waived to Energy Systems and Category (B) inventions are waived to the M&O contractor participating in a particular cooperative agreement under the HTSC Pilot Centers Program in order to take advantage of the technology transfer capability of the M&O contractor. Since the large business participant is unwilling to cost share a 20% or above level in Category B, the grant of a waiver to the large business participant is not justified. In order, however, to obtain the benefit of the demonstrated technology transfer capability of the M&O contractor or the Pilot Centers and to facilitate the incorporation of inventions of Category B that are made under these cooperative agreements into the M&O contractor licensing program in the superconductor field, the right to elect to file patent applications on such identified inventions is placed with the Pilot Center's M&O contractor.

Further, technology transfer may be enhanced by the M&O contractor being able to offer the waived inventions made under the HTSC Pilot Centers Program with other of its related inventions in the High Temperature Superconductivity field. Thus, it is believed that the granting of a waiver to these identified inventions will make the benefits of the superconducting technology widely available to the public in the shortest practicable time and promote the commercial utilization of such inventions.

In another particular, the scope of this class waiver is directed to an advance waiver of inventions of a limited class of cooperative agreements entered into under the HTSC Pilot Centers Program with large business entities which cost share at least 20% (not including any waived fee).

With respect to the advance class waiver to the limited class of cooperative agreements, this waiver category is an extension of existing DOE patent waiver policy which recognizes that at least a 20% level of cost sharing is an indication of commitment by the participant to advance the technology and effect commercial utilization thereof. Thus, it is believed that the granting of this limited class waiver will also make the benefits of the superconducting technology widely available to the public in the shortest practicable time and promote the commercial utilization of the waived inventions.

Implementation of this class waiver to the identified inventions of Categories (A) and (B) is to be by a simple procedure which requires (1) the M&O contractor reporting of the invention within the times specified in its contract with a request to retain rights; (2) certification by the M&O contractor regarding its intent to commercialize the invention itself or through its licensee(s) within three years from the time this waiver is effective, subject to extension of the time period for commercialization, in two year intervals, so long as the M&O contractor demonstrates to the satisfaction of DOE that it or its licensee(s) is actively pursuing commercialization of the invention; (3) certification by the M&O contractor that the invention at the time of the request for waiver has not been developed to the point of commercialization; and (4) certification by the M&O contractor that it will bear the cost of prosecuting and maintaining any patent application(s) or patent(s) on the waived invention at its private expense in accordance with its M&O contract or as otherwise approved by the Assistant General Counsel for Patents.

The Patent Counsel assisting the procuring activity must review and certify as to whether the conditions of this class waiver have been met. For the class of identified inventions of Categories (A) and (B) this includes certification that, after review of the invention and relevant facts, the waiver is applicable to the invention. For the advance waiver for the limited class of cooperative agreements it includes certification that the minimum requirement of 20% cost sharing (not including any waived fee) is met.

Because of the nature of the work to be performed under the cooperative agreements under the experimental HTSC Pilot Centers Program, the scope of the class waiver does not include inventions which: (1) fall within DOE's weapon program, naval nuclear propulsion program, uranium enrichment (including isotope separation) program, storage and disposal of civilian high level nuclear waste or spent nuclear fuels; (2) relate to subject matter that is classified or sensitive under Section 148 of the Atomic Energy Act of 1954, as amended; and (3) come within the ambit of international agreements or treaties in existence at the time of execution of the cooperative agreements for inventions waived to the participants or identified in the M&O contracts for inventions waived to the M&O contractors in the area of superconducting technology.

It is believed that this HTSC waiver not only responds to the President's initiative to promote commercial development of superconductivity research, but is consistent with the objectives and considerations of DOE statutory waiver policy. This waiver promotes wider interaction between private participants for co-sponsored research and development utilizing the combined technology of participants and Pilot Centers. An equally important feature of this waiver is that it permits utilization of the demonstrated technology transfer capabilities of the M&O contractors participating in the Pilot Centers Program in a tandem relationship with the participant to promote commercialization of sponsored HTSC technology especially in cases where interest in commercialization of the participant is narrow but the developed technology has broad application and the participant is either unwilling or unable to promote the broader applications.

It is recognized that the Pilot Centers Program is an experimental program which has as its goal to commercialize the HTSC technology and as such the M&O Contractor's performance will be closely evaluated for future programs therein and/or class waivers of this nature. Since the M&O Contractors through this class waiver to identified inventions will, in many cases, have commercialization rights in not only its own inventions but also inventions of the Participant (for cost shared agreements of less than 20% cost share) and will be entitled to negotiate with the Participant for such commercial rights in the HTSC technology, the Department has established criteria for evaluating the M&O contractor as to its selecting the commercialization route which will best ensure the early commercialization of the HTSC technology. Accordingly, this evaluation of the M&O contractor's licensing activities serves as additional justification for the grant of the waiver of the scope set forth herein.

The grant of this waiver allows the Pilot Centers to identify and implement effective government/industry research cooperation as a model for establishing a permanent program. Grant of waiver rights to the three M&O contractors operating the Pilot Centers and to the participants will provide these contractors with an opportunity to demonstrate the technical and technology transfer resources in conducting cooperative agreements with participants to develop the HTSC technology for commercial application, thereby improving United States competitiveness in the superconducting field.

The grant of this class waiver to the experimental Pilot Centers and participants should not result in adverse effects on competition or market concentration. The HTSC is an emerging technology in which quite a number of United States corporations as well as foreign companies have active development programs. Waived inventions will be subject to a royalty-free license to the Government and DOE has the right to require periodic reports on the utilization or the efforts at obtaining utilization that are being made for the waived inventions. If an M&O contractor or participant is not making reasonable efforts to utilize a waived invention, DOE can exercise its march-in rights and require licensing of the invention.

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Accordingly, in view of the DOE objectives for the HTSC Pilot Centers Program and in consideration of DOE's statutory waiver policy, all of which have been considered, it is recommended that this class waiver as set forth above will best serve the interests of the United States and the general public. It is therefore recommended that the waiver be granted.

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Based on the foregoing Statement of Considerations, it is determined that the interest of the United States and the general public will best be served by waiver of United States and foreign patent rights and, therefore, the waiver is granted. This waiver shall not affect any waiver previously granted.

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